

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 12-14 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Heingartner et al. (US Patent 6,553,803). Heingartner et al. discloses a device and method for detecting the bending angle of a plate sheet comprising a punch (2) and a compressed air/pressure measuring system/ servo-controlled device (8, 14, 15, 15a, and 16); two pairs of orifices (9-12) arranged on the matrix die face that get in contact with the plate sheet in symmetrical positions with respect to the vertical axis of the matrix die groove apex, each one of the orifices being supplied by a respective flow of compressed air, characterized in that the mean of measures of plate bearing angles onto the matrix die (3) is performed by mutually pneumatically connecting the two orifices (9 and 11) which are external to the matrix die slot and the two orifices (10 and 12) which are internal to the slot itself. Heingartner et al. also disclose generating at least two flows of compressed air in two matrix die points that are totally or partially covered by the plate sheet during its bending step (Figure 1); measuring the pressure variation between flows of compressed air during the bending step; and processing the measured pressure values and comparing them with predetermined sample values through calibration (Column 3, lines 52+). A first flow (9 or 11) of compressed air that is directed perpendicular to the plate sheet before its bending and is places on the matrix die (3) next to the plane sheet-

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bearing surface next to the matrix die groove; a second flow (10 or 12) directed perpendicular to the slot surface. Heingartner et al. is capable of measuring the pressure of a pair of compressed air flows on both slot faces.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 15-19 and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heingartner et al. in view Sartorio et al. (US Patent 5,148,693). Heingartner et al. discloses the invention substantially as claimed except for the differential pressure transducer/system pressure reducer, external covering device/shutter, and solenoid valves. Sartorio et al. discloses a method and device for detecting folding angles of a sheet having differential pressure transducer/system pressure reducer (differential manometers 69), external covering device/shutter (nozzles 68 and Column 6, lines 64+ - Column 7, lines 1-14), and solenoid valves (pneumatic gauges 50-53). The Examiner takes the broadest reasonable interpretation of the external covering device/shutter and therefore the nozzles 68 meet the limitation as claimed. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide Heingartner et al. with the claimed measuring and regulation instrumentation in order to apply a known technique to a known device ready for improvement to yield predictable results.

Response to Arguments

Applicant's arguments filed July 14, 2008 have been fully considered but they are not persuasive.

With regards to Applicant's arguments (page 9) pertaining to Heingartner's measuring ability, the Examiner maintains that Heingartner does disclose measuring a pressure variation between measured pressure values of at least two flows of compressed air as recited in claim 12. Heingartner discloses having more than "at least two flows" and discloses four flows of compressed air and equipment for analyzing and evaluating (comparing) the measure pressure data (Column 3, lines 9+).

With regards to Applicant's arguments (page 9) pertaining to the statement that, "Sartorio fails to disclose measuring a pressure variation between two air flows are cited in claim 15," the Examiner maintains that the combination of Heingartner and Sartorio meets this limitation. Heingartner, which was utilized to reject independent claim 12, established that a pressure variation is measured between at least two air flows, while Sartorio teaches a differential pressure transducer (Column 6, lines 64+ - Column 7, lines 1-14), as required in dependent claim 15.

With regards to Applicant's arguments (page 10) pertaining to the limitation of "a servo-controlled device." Both Heingartner and Sartorio disclose servo-controlled devices, assembly 16 and unit 32, respectively. The combination of Heingartner and Sartorio disclose a servo-controlled device as recited in claims 17 and 23.

With regards to Applicant's arguments (page 10) pertaining to the limitation, "a supply line having a system pressure reducer," the Examiner maintains that the combination of

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Heingartner and Satorio meets this limitation. Heingartner discloses a bending device having supply lines (conduits 14). Satorio teaches having a bending device having a system pressure reducer (differential manometer 69, Column 7, lines 1-14).

With regards to Applicant's arguments on (page 11) pertaining to the suggestion that "Heingartner teaches away from the proposed combination by measuring each of the channels separately," the Examiner maintains that while Heingartner does measure the pressures of the channels separately (Column 3, lines 24-27); it also measures a pressure variation between the measured pressures of the channels ("The four pressure-sensing devices 15a continues determine the pressure present in each of the four channels 9, 10, 11 and 12 and transmit the measured data to control and analyzing assembly 16" from Column 3, lines 45-48). Therefore, Heingartner meets the claimed limitation of "measuring a pressure variation between the measured pressure values of the at least two flow of compressed air."

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TERESA BONK whose telephone number is 571-272-1901. The examiner can normally be reached on Monday- Friday 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dana Ross can be reached on 571-272-4480. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dana Ross/
Supervisory Patent Examiner, Art Unit 3725

Teresa M. Bonk
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